

## INTERNATIONAL SEARCH REPORT

Inter-Application No

PCT/EP 03/04103

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 A61K47/48 A61K49/00 A61K39/35 A61K39/36 A61P37/08

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, CHEM ABS Data, EMBASE, BIOSIS, MEDLINE

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 849 884 A (BROWN LARRY R ET AL) 15 December 1998 (1998-12-15) column 14, line 15 - line 19; claims 1,4,7 column 15, line 44 - line 47	1-14
Y	WO 95 19437 A (MOHAPATRA SHYAM S ;UNIV MANITOBA (CA); SEHON ALEC H (CA)) 20 July 1995 (1995-07-20)	1-14
X	claims 1,3,7,17,21,36,37; example 2	1
Y	EP 0 451 800 A (ABBOTT LAB) 16 October 1991 (1991-10-16) claims 1,2,4	1-14
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☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

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Date of the actual completion of the international search

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	GEETA N SAI ET AL: "In vitro immunization of murine lymphocytes using immobilized immunogens." BIOTECHNOLOGY AND APPLIED BIOCHEMISTRY, vol. 24, no. 1, 1996, pages 61-64, XP008009290 ISSN: 0885-4513 abstract	1-14
Y	SCHRAMM G ET AL: ""Allergen engineering": variants of the timothy grass pollen allergen Phl p 5b with reduced IgE-binding capacity but conserved T cell reactivity." JOURNAL OF IMMUNOLOGY (BALTIMORE, MD.: 1950) UNITED STATES 15 FEB 1999, vol. 162, no. 4, 15 February 1999 (1999-02-15), pages 2406-2414, XP002216586 ISSN: 0022-1767 page 2413, column 2, paragraph 3	1-14
A	WO 98 43657 A (MERCK PATENT GMBH ;MUELLER WOLF DIETER (DE); BUFE ALBRECHT (DE); F) 8 October 1998 (1998-10-08) abstract; claims	1-14

# INTERNATIONAL SEARCH REPORT

Information on patent family members

Inter Publication No

PCT/EP 03/04103

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 5849884	A	15-12-1998	US 5484894 A	16-01-1996
			US 5981719 A	09-11-1999
			US 6268053 B1	31-07-2001
			US 6090925 A	18-07-2000
			US 5554730 A	10-09-1996
			AT 163230 T	15-02-1998
			AU 6358594 A	26-09-1994
			CA 2157793 A1	15-09-1994
			DE 69408527 D1	19-03-1998
			DE 69408527 T2	04-06-1998
			EP 0688429 A1	27-12-1995
			EP 0809110 A1	26-11-1997
			ES 2113094 T3	16-04-1998
			JP 8507806 T	20-08-1996
			WO 9420856 A1	15-09-1994
			US 5578709 A	26-11-1996
WO 9519437	A	20-07-1995	AU 1410995 A	01-08-1995
			CA 2181142 A1	20-07-1995
			WO 9519437 A1	20-07-1995
EP 0451800	A	16-10-1991	US 5091318 A	25-02-1992
			AU 634647 B2	25-02-1993
			AU 7433091 A	17-10-1991
			CA 2039958 A1	14-10-1991
			EP 0451800 A1	16-10-1991
			JP 4225163 A	14-08-1992
WO 9843657	A	08-10-1998	DE 19713001 A1	01-10-1998
			WO 9843657 A2	08-10-1998
			EP 1009419 A2	21-06-2000
			HU 0001552 A2	28-09-2000
			JP 2002511842 T	16-04-2002
			PL 335981 A1	05-06-2000